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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/679,075

10/03/2003

Steven Durham

40120-10024

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21788

7590

12/08/2006

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EXAMINER

A, PHI DIEU TRAN

ART UNIT

PAPER NUMBER

3637

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,075

Applicant(s)

DURHAM, STEVEN

Examiner

Phi D. A

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-39 is/are pending in the application.
- 4a) Of the above claim(s) 16-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/2/06 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 21-24, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dinwoodie(D408554).

Dinwoodie shows a shelter/carport capable of producing electrical energy comprising a canopy defining a sheltered area thereunder, the shelter area including at least one vehicle parking space (the space beneath the shade system inherently is able to accommodate a vehicle parking there), a supporting structure (the posts) connected to the supporting the canopy and permitting substantially unobstructed access by a vehicle to the sheltered area, a photovoltaic device associated with the canopy, the device capable of producing an electrical current when exposed to sunlight (per the solar electric which means converting solar power to electrical power), the shelter having no walls, the device is supported by the canopy, the device is on the

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canopy, the device forming the canopy (inherently so as the device is part of canopy structure), the device producing DC electrical current when exposed to sunlight.

Dinwoodie does not show an electrical load operatively connected to the device for utilizing the electricity generated by the device when the device is exposed to light.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Dinwoodie's structure to show the electricity being connected to an electrical load because having the electricity connected to an electrical load would enable the usage, storage per battery, and distribution of the electricity generated by the solar electric shade, and the use of the connection of a load to the electricity is well known in the art as is demonstrated by existing use of solar panels.

3. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dinwoodie (D408554) in view of Laaly et al (4860509).

Dinwoodie as modified shows all the claimed limitations except for the device being selected from the group consisting of crystalline photovoltaic systems, flexible thin film photovoltaic systems, stacked photovoltaic layers and photovoltaic and light emissive layers.

Laaly et al discloses a photovoltaic device (figure 2-3) capable of producing an electrical current when exposed to a light source, the device associated with the canopy (10) to produce electrical current from sunlight, an electrical load (structures that use the electricity) operatively connected to the device, the device being formed of crystalline photovoltaic systems (col 6 line 63), multiple layers of flexible thin film photovoltaic systems (col 8 line 46), a light emitting coating (14) and the device is capable of generating electricity from the light emitted by the light emitting coating.

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It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Dinwoodie's modified structure to show the device being selected from the group consisting of crystalline photovoltaic systems, flexible thin film photovoltaic systems, stacked photovoltaic layers and photovoltaic and light emissive layers because crystalline systems, flexible thin film systems are normally used material for producing electricity as taught by Laaly et al.

4. Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dinwoodie (D408554) in view of Laaly et al (4860509) as applied to claim 25 above and further in view of Albright et al (5674325).

Dinwoodie as modified shows all the claimed limitations except for the photovoltaic device being transparent.

Albright et al discloses photovoltaic device being transparent (col 6 lines 23-24).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Dinwoodie's modified structure to show the photovoltaic device being transparent because it would enable the light to pass through the film transparent film layer to reach the semiconductor layer to enable the generation of electricity as taught by Albright et al

Per claim 27, Dinwoodie as modified show the device being composed of multiple layers of flexible thin film transparent photovoltaic material.

5. Claims 21, 33-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dinwoodie (D408554) in view of Anderson et al (2005/0233125).

Dinwoodie shows a shelter/carport capable of producing electrical energy comprising a canopy defining a sheltered area thereunder, the shelter area including at least one vehicle

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parking space (the space beneath the shade system inherently is able to accommodate a vehicle parking there), a supporting structure (the posts) connected to the supporting the canopy and permitting substantially unobstructed access by a vehicle to the sheltered area, a photovoltaic device associated with the canopy, the device capable of producing an electrical current when exposed to sunlight (per the solar electric which means converting solar power to electrical power), the shelter having no walls, the device is supported by the canopy, the device is on the canopy, the device forming the canopy (inherently so as the device is part of canopy structure) a first photovoltaic device associated with the upper surface of the canopy and oriented to receive sunlight directly.

Dinwoodie does not show an electrical load operatively connected to the device for utilizing the electricity generated by the device when the device is exposed to light, the electrical load being a battery.

Anderson et al discloses the use of an electrical load having a battery activating an artificial light source operatively connected and between laminated structures utilizing electrical power formed by photovoltaic device, the light source being formed of OLED, the electricity is stored in battery for later usage.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Dinwoodie's structure to show an electrical load operatively connected to the device for utilizing the electricity generated by the device when the device is exposed to light because it allows for the easy lighting of the structure as taught by Anderson et al.

Per claim 33, Dinwoodie as modified shows a light emitting coating generating light, and a photovoltaic device absorbing light forming electricity. Dinwoodie's modified is inherently

capable of generating electricity from the light emitted by the light emitting coating per the nature of the photovoltaic device.

Per claim 35, Dinwoodie as modified shows the battery is operatively connected to a light which illuminates the sheltered area.

Per claim 37, Dinwoodie as modified shows the electricity current produced by the device charging a battery.

6. Claims 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dinwoodie (D408554) in view of Anderson et al (2005/0233125) as applied to claim 21 above and further in view of PCMAG (literature submitted by applicant in 11/438195), and Ortabasi (5990413).

Dinwoodie as modified shows all the claimed limitations except for a second photovoltaic device associated with the underside of the canopy and directed toward the ground to receive light form the light source.

Ortabasi discloses the use of a solar panel that is bifacial to enable the panel to convert energy from light coming from both sides of the panel.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Dinwoodie's modified structure to show a second photovoltaic device associated with the underside of the canopy and directed toward the ground to receive light form the light source since having a second photovoltaic device associated with the underside of the canopy and directed toward the ground to receive would enable the structure to receive light from different angles and hence increasing the efficiency of the structure as taught by Ortabasi.

Per claims 29-32, Dinwoodie as modified shows the light source is dispersed within the second photovoltaic device, the artificial light source comprising a light emitting diode

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associated with the photovoltaic device, the diode is capable of displaying human readable information, the light emitting diode is a flexible thin film light emitting diode.

7. Claims 38-39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dinwoodie (D408554) in view of Anderson et al (2005/0233125) as applied to claim 36 above and further in view of Enviro-friendly (NPL).

Dinwoodie as modified discloses all the claimed limitations steps except for an inverter for converting the DC electrical current produced by the device to an AC electrical current, a connection for transmitting the AC electricity to a utility company power grid, and a meter for measuring AC current produced by the inverter.

Enviro-friendly discloses the well known use of inverter to convert DC to AC current to be transmitted to utility company power grid with a meter measuring the power transfer in an effort to sell back the unused extra available power generated by a photovoltaic system.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Dinwoodie's modified structure to show an inverter for converting the DC electrical current produced by the device to an AC electrical current, a connection for transmitting the AC electricity to a utility company power grid, and a meter for measuring AC current produced by the inverter because it would enable the sale and saving from the surplus power generated from the photovoltaic device as taught by Enviro-friendly.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined

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application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 21-39 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 21-39 of copending Application No. 10/679075. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims 1-5 of application 11/438195 is sufficiently broad to include the limitations of claims 21-39.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

3. Applicant's arguments with respect to claims 21-39 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

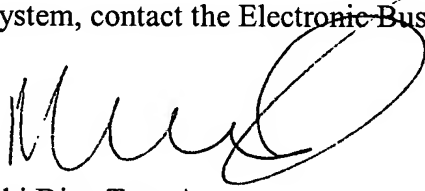
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art shows different solar panel device.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 571-272-6864. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 571-272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phi Dieu Tran A

12/7/06